**(U//FOUO) Getting Leads: GEO Mining**

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(S//SI) What is "GEO Mining"? - It's a new approach to finding important leads ("needles") in large "haystacks" of phone call-related metadata. Its goal is to give SIGINT analysts useful tools to help them get new and profitable lead information on their targets. The way it works is this: first, analysts establish a profile to narrow down the type of call events that are of interest. For example, they may be interested in calls that were made in a certain region at a particular time. Next, GEO Mining's algorithm mathematically enhances the profile and sifts through NSA's databases to isolate those call events that appear most promising as target leads. These leads are then passed to the analysts for follow-up investigation.

(TS//SI) As part of GEO Mining's development, several tests have been conducted. In one case, the objective was to find new heroin-processing labs in Afghanistan and the associated PCS (Personal Communications Service) handsets. Since there are about 97,000 locatable call events in Afghanistan on any given day, GEO Mining's task was to winnow this down to a manageable number of leads. With the help of the South West Asia Narcotics (SWAN) team (S2F11), a profile was created to include only the calls that were made near 27 known heroin-processing labs in the country. When run against the available metadata, the program produced a list of the handsets that were used in the targeted area. The top 20 handsets were then tasked for collection, and at least one has produced reportable intelligence. In addition, a map of potential new drug labs was sent to the National Geospatial-Intelligence Agency (NGA), which confirmed that the suspected sites were indeed labs.

(U/FOUO) Geo Mining aims to create a suite of tools to routinely give SIGINT developers and analysts lead information of this kind. The cross-organizational team consists of members from SID/Cryptanalysis and Exploitation Services (CES - S31), the NSA/Research Associate Directorate (RAD), the GEO Cell (S2L), and the Cryptologic Mathematician Program (S3T2).

(U//FOUO) Are you interested in joining the GEO Mining team? If so, contact the team leader, Paul Brown (████████@nsa) for further information.